

CLAIMS

What is claimed is:

1. A system for automatic skew compensation comprising:

5 a signal injection circuit for injection synchronous
test pulses into wires of a cable configured to carry
components of a video signal;

a skew tuning circuit in communication with said
signal injection circuit for receiving said test pulses and
for measuring a skew of said received test pulses to
10 determine delays to apply to one or more components of a
video signal; and

a selectable delay circuit controlled by said skew
tuning circuit for applying said delays to one or more
components of a received video signal.

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2. A system for automatic skew compensation according to
claim 1, wherein each of said test pulses is a square wave.

3. A system for automatic skew compensation according to
20 claim 1 further comprising:

a memory coupled to said skew tuning circuit for
storing the value of said determined delays.

4. A system for automatic skew compensation according to claim 3, wherein said skew tuning circuit measures said skew by comparing the combined amplitudes of said test pulses to a reference amplitude.

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5. A system for automatic skew compensation according to claim 4, wherein said skew tuning circuit determines said delays by:

measuring a skew for each possible delay combination
10 utilizing said selectable delay circuit;
storing the results of said measuring in said memory;
comparing said results of said measuring to said
reference amplitude;
determining a delay combination that produced a result
15 closest to said reference amplitude.

6. A system for automatic skew compensation according to claim 1, wherein said selectable delay circuit utilizes inductor-capacitor delay circuits to implement said delays.

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7. An system for automatic skew compensation according to claim 1, wherein said selectable delay circuit utilizes at least one printed circuit board, wherein each said at least one printed circuit board comprises at least one printed
5 delay circuit to implement said delays.

8. A system for automatic skew compensation according to claim 1, wherein said components of said video signal are red, green and blue components.

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9. A system for automatic skew compensation according to claim 8, wherein said selectable delay circuit contains three separate delay circuits, with one delay circuit being coupled to each of the wires configured to carry the red,
15 green, and blue components of the video signal.

10. A system for automatic skew compensation according to claim 1, wherein said signal injection circuit injects said test pulses upon receipt of a control signal from said skew
20 tuning circuit.

11. A system for automatic skew compensation according to claim 1 further comprising:

a manual override circuit for manually adjusting said selectable delay circuit.

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12. A system for automatic skew compensation of video signals comprising:

a computer interface module for transmitting synchronous test pulses and said video signals over a cable, wherein each of the red, green, and blue components of said video signals are transmitted on a different twisted pair of said cable, wherein said computer interface module includes:

a signal injection circuit for injecting said synchronous test pulses on each of said three twisted pairs of said cable utilized to transmit said video signals, and

a switch for selecting transmission of either said synchronous test pulses or said video signals; and

a user workstation in communication with said computer interface module, wherein said user workstation includes:

a video receipt circuit for receiving said video signals and said test pulses from said computer interface module,

a skew tuning circuit for measuring a skew of
said received test pulses to determine delays to apply to
the red, green, and blue components of said video signals,

a selectable delay circuit controlled by said
5 skew tuning circuit for applying said delays, and
a control circuit for generating a control signal to
control said switch of said computer interface module.

13. A system for automatic skew compensation of video
10 signals according to claim 12, wherein said selectable
delay circuit utilizes inductor-capacitor delay circuits to
implement said delays.

14. A system for automatic skew compensation of video
15 signals according to claim 12, wherein said selectable
delay circuit utilizes one or more printed circuit boards
containing a number of printed delay circuits of different
lengths to implement said delays.

20 15. A system for automatic skew compensation of video
signals according to claim 12, wherein each of said test
pulses is a square wave pulse.

16. A system for automatic skew compensation of video signals according to claim 12, wherein said cable is a Category 5 cable.

5 17. A system for automatic skew compensation of video signals comprising:

a computer interface module for transmitting video signals and composite signals over a cable, wherein each of the red, green, and blue components of said video signals
10 are transmitted on a different twisted pair of said cable, wherein said computer interface module includes:

a signal injection circuit for generating synchronous test pulses for each of said three twisted pairs of said cable utilized to transmit said video
15 signals, and

a composite switch for creating said composite signals comprising said test pulses and said video signals for each of said three twisted pairs of cable; and

a user workstation in communication with said computer
20 interface module, wherein said user workstation includes:

a video receipt circuit for receiving said video signals and said composite signals from said computer interface module,

an extract circuit for extracting test pulses from said composite signals and for extracting video signals from said composite signals,

5 a skew tuning circuit for measuring a skew of said test pulses to determine delays to apply to the red, green, and blue components of said video signals, and

a selectable delay circuit controlled by said skew tuning circuit for applying said delays to said video signals.

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18. A system for automatic skew compensation of video signals according to claim 17, wherein said selectable delay circuit utilizes inductor-capacitor delay circuits to implement said delays.

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19. A system for automatic skew compensation of video signals according to claim 17, wherein said selectable delay circuit utilizes one or more printed circuit boards containing a number of printed delay circuits of different
20 lengths to implement said delays.

20. A system for automatic skew compensation of video signals according to claim 17, wherein each of said test pulses is a square wave pulse.

21. A system for automatic skew compensation of video signals according to claim 17, wherein cable is a Category 5 cable.